

the probability of decreasing humidity during the ensuing 48 hours. These advices were fully verified. In California the fire hazard grew slowly more acute, but as warnings of it had been issued on the 30th of May, no further special warnings were required. The fire hazard in Oregon and Washington was reduced somewhat on the 4th by the passage of a Canadian disturbance which raised humidities and lowered temperatures in those States, but this was quickly followed by a recurrence of high pressure and rising temperatures on the 5th which resulted in excessively warm weather throughout the interior of northern California and southwestern Oregon, and temperatures generally well above normal in other parts of Oregon, and in Washington and Idaho. Temperatures moderated very decidedly in California on the 7th due to the development of a depression over the Plateau. This depression gathered energy and moved northward bringing cooler weather to the remainder of the district on the 8th and 9th.

This type persisted for two weeks when the pressure fell in the Gulf of Alaska and the sub-permanent oceanic HIGH reverted to a southwest-northeast position between the Pacific States and Hawaii. At the same time the pressure rose over the North Pacific States calling for fire-weather warnings for northern California on the 20th. The fire hazard grew steadily more serious in that part of the State from then on, and it increased likewise in Oregon, Washington, and Idaho, the situation in the last-named States being adequately covered by the forecasts issued at San Francisco, Portland, and Seattle. Falling pressure over the northern Plateau and British Columbia brought lower temperatures and higher humidities to a large part of the district on the 29th and 30th, but severe lightning storms on those days, ignited hundreds of fires, and at the close of the month an unusually large number of serious conflagrations was being fought in the Sierra Nevada and Siskiyou mountains of California. Particular reference was made to the probability of thunderstorms in the mountains of California in the district forecasts of the 27th, 28th and 29th.—*T. R. Reed.*

### RIVERS AND FLOODS

By H. C. FRANKENFIELD

The few floods which occurred in important rivers during June were generally well forecast and without damage of any kind.

An extensive crevasse occurred on the 14th in the levee of the Imperial Irrigation District south of the Pescadero Dam in the Colorado River, resulting in the flooding of a considerable area of land about Volcano Lake. No report of the extent of the damage was received.

A serious local flood, due to excessive precipitation in a thunderstorm, took place on the 11th in the Pecatonica River of north-central Illinois. One man was drowned and considerable unreported damage occurred to lowland crops in a restricted area.

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
<i>Mississippi drainage</i>					
	<i>Feet</i>			<i>Feet</i>	
Tippecanoe, Norway, Ind.-----	6	13	14	6.6	June 14
Mississippi, Louisiana, Mo.-----	12	12	12	12.0	12
Des Moines, Ottumwa, Iowa.-----	10	15	16	10.5	16
Illinois:					
Peru, Ill.-----	14	13	21	14.7	16, 18, 19
Beardstown, Ill.-----	14	17	30	15.4	21
Pearl, Ill.-----	12	17	23	12.9	21
Grand:					
Gallatin, Mo.-----	20	17	17	23.7	17
Chillicothe, Mo.-----	18	15	21	24.4	18
Grand, Thompsons Fork, Trenton, Mo.-----	20	18	18	20.6	18
Canadian, Logan, N. Mex.-----	4			6.6	19
<i>West Gulf drainage</i>					
Trinity:					
Dallas, Tex.-----	25	2	6	28.0	5
Trinidad, Tex.-----	28	7	10	30.7	9
Rio Grande, San Marcial, N. Mex.-----	2	(1)	22	4.5	May 27, 28
Pecos, Pecos, Tex.-----	11	1		13.4	June 1, 2
<i>Pacific drainage</i>					
Colorado:					
Fruita, Colo.-----	12	3	3	12.0	3
		5	9	12.5	8
Parker, Ariz.-----	7	(1)	(2)	10.2	12-13
Eagle, Eagle, Colo.-----	5	3	9	5.6	8
		13	13	5.3	13
		15	15	5.5	15
Gunnison, Delta, Colo.-----	9	1	13	10.0	5

<sup>1</sup> Continued from last month.

<sup>2</sup> Continued at end of month.

### MEAN LAKE LEVELS DURING JUNE, 1926

BY UNITED STATES LAKE SURVEY

[Detroit, Mich., July 3, 1926]

The following data are reported in the "Notice to Mariners" of the above date:

Data	Lakes <sup>1</sup>			
	Superior	Michigan and Huron	Erie	Ontario
Mean level during June, 1926:				
Above mean sea level at New York.....	<i>Feet</i> 600.50	<i>Feet</i> 578.41	<i>Feet</i> 571.22	<i>Feet</i> 245.31
Above or below—				
Mean stage of May, 1926.....	+0.32	+0.27	+0.05	—0.06
Mean stage of June, 1925.....	—0.72	—0.05	+0.04	—0.11
Average stage for June, last 10 years.....	—1.67	—2.15	—1.48	—1.32
Highest recorded June stage.....	—2.93	—5.19	—3.30	—3.32
Lowest recorded June stage.....	—0.72	—0.05	+0.04	+0.42
Average departure (since 1860) of the June level from the May level.....	+0.27	+0.23	+0.18	+0.14

<sup>1</sup> Lake St. Clair's level: In June, 1926, 573.79 feet.

### THE EFFECT OF WEATHER ON CROPS AND FARMING OPERATIONS JUNE, 1926

By J. B. KINCER

*General summary.*—At the close of May, soil moisture was deficient over a considerable area in the central-northern portion of the country between the upper Mississippi Valley and the Rocky Mountains, and it was

much too dry for good growth of vegetation in the interior of the Southeastern States. Otherwise, moisture conditions were mostly favorable. The drought in the Southeast continued until after the middle of the month, but generous rains the latter part brought relief and thereafter crops made good growth in that section. In the central-northern portion comparatively good rains brought considerable relief about the middle of the month, but, in general, at its close moisture was still needed over a rather wide area of the Northern Plains.

It was too cool for good growth, especially for warm-weather crops, over the northeastern quarter of the country from the middle Mississippi and Ohio Valleys northward and northeastward, and progress was generally slow with the season continuing late. In the South, while it was occasionally too cool for good growth, temperatures were more favorable and crops made fair to good progress, except in the southeastern drier sections. In the Southwest conditions were generally favorable, as soil moisture was mostly ample and temperatures moderate. It was too dry in the far Northwest and the prevailing high temperatures were unfavorable for dry-land crops.

*Small grains.*—Except in the north-central Great Plains, the weather during June was generally favorable for winter wheat, and the crop made satisfactory progress throughout the principal producing area. Over the central and eastern portions of the belt generous rains about the middle of the month were very beneficial, particularly in northern districts, but in the northwestern portion, especially in northwestern Kansas and in Nebraska, moisture continued insufficient, and the crop was badly damaged by the drought. Exceptionally good harvest weather prevailed, and this work made rapid progress, at a little later date, however, than usual in the eastern portion of the Wheat Belt. At the close of the month cutting was in progress as far north as southeastern Nebraska, and in the east was begun to southern Ohio.

While showers about the middle of June were beneficial for spring wheat, moisture was generally insufficient for that crop and poor to only fair progress was reported in most sections of the belt. Oats improved with the rains and cool weather over the northern half of the country, but it was too dry in some interior valley States, especially in the immediate Ohio Valley and parts of the Northwest. There were complaints of the crop heading on short straw in many sections of the country. Rice did well in the lower Mississippi Valley and West Gulf districts and in California was benefited by warm weather.

*Corn.*—The weather continued too cool, especially at night, for good growth of corn north of the Ohio and east of the Mississippi Rivers, and progress was slow and the crop late in that area. South of the Ohio River temperature conditions were more favorable and progress was mostly satisfactory, with moisture in the Southeast after the middle of the month very favorable. In the Southwest and generally between the Mississippi River and Rocky Mountains growth was mostly satisfactory, though it was rather too cool for best results in the northern half of the area, and moisture was deficient in a few sections. Locally in the upper Mississippi Valley there was too much rain for this crop about the middle of the month.

*Cotton.*—The weather was mostly favorable for the cotton crop, although it was rather too cool for good growth in the northeastern portion of the belt during much of the month, and too dry in the interior of the southeast during the first half. Following the rains in the Southeast the progress of the crop was very good and the germination of seeds that had lain dormant in the dry soil resulted in better stands, particularly in western North Carolina, central and northwestern South Carolina, and northern Georgia. In the western half of the belt it was rather too cool in the north, but progress of the crop in general was satisfactory, especially in much of Texas. There was considerable complaint of flea damage in many sections, but only local reports of weevil activity.